

SOV/137-58-9-19977

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 9, p 270 (USSR)

AUTHOR: Kuperman, D.I.

TITLE: 45Kh Disk Steel as a Substitute for 43N Steel (Stal' marki  
45-Kh-diskovaya kak zamenitel' stali 43N)

PERIODICAL: Tr. Nevsk. mashinostroit. z-da, 1957, Nr 2, pp 70-74

ABSTRACT: Ref. RZhMet, 1958, Nr 9, abstract 19976

1. Steel--Effectiveness

Card 1/1

SOV/137-58-9-19976

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 9, p 270 (USSR)

AUTHOR: Kuperman, D.I.

TITLE: Elimination of Rejects Due to Temper Brittleness in Turbine-disk forgings of 45Kh Disk Steel (Likvidatsiya braka po otpusknoy khrupkosti pokovok turbinnyykh diskov, izgotoviennykh iz stali marki 45Kh-diskovaya)

PERIODICAL: Tr. Nevsk. mashinostroit. z-da, 1957, Nr 2, pp 82-84

ABSTRACT: Application of a statistical method revealed a relationship between  $a_k$  and the P content of 45Kh steel. As a result, the maximum P contents are set at 0.025%. For steels containing > 0.03 P, a special heat treatment was devised based on repeated tempering and cooling after tempering by a combination of methods. Nr 45Kh disk steel, which is highly heat stable, may be used in a number of cases instead of costly 34KhM steel for temperatures up to 400°C.

- 1. Turbines--Equipment
- 2. Steel--Forging
- 3. Steel--Quality control

I.B.

Card 1/1

AL: "Energomashinostroenie", Vol. 3, No. 6, pp. 20 - 23 (U.S.S.R.)  
Methods of increasing the impact strength of forgings  
in turbine manufacture. (Metody povysheniya udarnoy vya-  
kosti pokovok, primenayemykh v turbostroyenii.) 114-6-6/11  
the production of turbine disc forgings cases are  
of the metal having low impact strength although  
of the yield point, ultimate strength, elonga-  
tion and hardness are all correct. This article presents  
variations in the structure when  
on the impact strength of the fracture. It is possible to  
reduce the impact strength of the fracture  
and also to increase it from

## ABSTRACT:

In the production of turbines of increasing strength of forgings observed of the metal having low impact strength cases are reduction of area and hardness are all correct. Experience, has shown that minor variations in the impact strength, although have a marked influence on the same. This article presents the results of an investigation between the structure of forgings and the properties remain the same. The heat treatment to improve the structure of forgings and also to establish a relationship between the structure of discs made from steels 34X and 40H. Twenty disc forgings of steel 34XM which were rejected at different times were rejected for low impact strength. The heat treatment to which they had been subjected is described and since it was not satisfactory.

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Card 57

Methods of increasing the impact strength of forgings used  
in turbine manufacture. (Cont.)  
114-6-6/11

of the discs.

It is concluded that disc forgings of steels 34XM, 40H  
and 43H which were subject to overheating near the hub,  
usually, in the process of hot working, maintain their  
shiny crystalline fracture and low impact strength.

In steel 34XM a similar degree of overheating is not  
usually observed in analysis of the micro-structure of  
hardening is not great enough. Special heat treatment  
including heating to Chernov's 'b' point gives stable inc-  
rease in the impact strength and improvement in the appear-  
ance of fracture of steel 34XM.

Coarse grain structure of overheating of steels 40H and  
43H is not fully corrected by special heat treatment the  
appearance of the fracture remains either mixed or fine  
grained.

When the impact strength is low because cooling has not  
been fast enough during hardening of steels 34XM and 43H,  
repeated heat-treatment is permissible including hardening  
by cooling through water into oil. This treatment is less effective  
in forging near the hub.

2000

CIA-RDP86-00513R00092

117-58-6-17/36

AUTHOR: Kuperman, D.I., Engineer  
TITLE: Elimination of the Deformations of Springs After Tempering (Ustraneniye deformatsii pruzhin posle zakalki)  
PERIODICAL: Mashinostroitel', 1958, Nr 6, pp 28-29 (USSR)

ABSTRACT: In turbine manufacturing large springs made from wire 10 mm and more in diameter, and a height of at least 400 mm are used. The steel used for the manufacture of the springs is 60S2A. The springs in turbines are subjected to severe stresses, and must be tempered. But the tempering causes deformations, so that many springs are not fit for use. Special devices have been developed to prevent deformation. As these devices impede the tempering, a new method has been developed to make use of the softening of the steel during annealing. This softening process takes place during the decomposition of the martensite and is characterized by the low resistance of the steel to bending. During this stage the springs are brought into chucks which correct all deformations. These chucks are pipes of 175 mm in diameter. The springs are put into them after a heating of 30 min. at a temperature of 860-870°C, and are annealed for 1½ hours at a temperature of 400-420°C. In the table the results of the testing of the

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Methods of increasing the impact strength of forgings used  
in turbine manufacture. (Cont.)  
of the discs.

114-6-6/11

It is concluded that disc forgings of steels 34XM, 40H and 43H which were subject to overheating near the hub, usually, in the process of hot working, maintain their shiny crystalline fracture and low impact strength.

In steel 34XM a similar degree of overheating is not always clearly observed in analysis of the micro-structure particularly if the rate of cooling during the process of hardening is not great enough. Special heat treatment including heating to Chernov's 'b' point gives stable increase in the impact strength and improvement in the appearance of fracture of steel 34XM.

Coarse grain structure of overheating of steels 40H and 43H is not fully corrected by special heat treatment and despite the stable improvement in impact strength the appearance of the fracture remains either mixed or fine grained.

When the impact strength is low because cooling has not been fast enough during hardening of steels 34XM and 43H, repeated heat-treatment is permissible including hardening by cooling through water into oil. This treatment is less effective with steels 40H and 43H in the case of overheating in forging near the hub.

Card 3/4

Methods of increasing the impact strength of forgings used  
in turbine manufacture. (Cont.) 114-6-6/11

There are 5 figures, 4 tables and 2 Slavic literature  
references.

AVAILABLE:

Card 4/4

APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R000927610002

AUTHOR:

Kuperman, D.I., Engineer

TITLE:

Elimination of the Deformations of Springs After Tempering  
(Ustraneniye deformatsii pruzhin posle zakalki)

PERIODICAL:

Mashinostroitel', 1958, Nr 6, pp 28-29 (USSR)

ABSTRACT:

In turbine manufacturing large springs made from wire 10 mm and more in diameter, and a height of at least 400 mm are used. The steel used for the manufacture of the springs is 60S2A. The springs in turbines are subjected to severe stresses, and must be tempered. But the tempering causes deformations, so that many springs are not fit for use. Special devices have been developed to prevent deformation. As these devices impede the tempering, a new method has been developed to make use of the softening of the steel during annealing. This softening process takes place during the decomposition of the martensite and is characterized by the low resistance of the steel to bending. During this stage the springs are brought into chucks which correct all deformations. These chucks are pipes of 175 mm in diameter. The springs are put into them after a heating of 30 min. at a temperature of 860-870°C, and are annealed for 1½ hours at a temperature of 400-420°C. In the table the results of the testing and measuring of these

Elimination of the Deformations of Springs After Tempering  
117-58-6-17/36  
Springs are given. There is 1 table.

AVAILABLE: Library of Congress  
Card 2/2 1. Springs-Deformation 2. Tempering-Applications

25(2)

SV/117-55-3-10/37

AUTHOR: Kuperman, D.I., Engineer

TITLE: A New Method of Making Balancer Axles (Novyy metod izgotovleniya osey balansira)

PERIODICAL: Mashinostroitel', 1959, Nr 3, p 17 (USSR)

ABSTRACT: On the author's suggestion, steel "20" formerly employed for the balancer axle (shown in drawing) of the "ATZ-NATI" tractor was replaced by steel "50G", of a higher wear resistance and far better resistance to deformation during heat treatment. This replacement has eliminated the operations of cementation, additional boring of the center hole after cementation, and sand blasting. All machining can now be done in a single cycle without the former transportation from machine tool to heat treatment ovens and back. The balancer axles for the cater-

Card 1/2

A New Method of Making Balancer Axles

SOV/117-59-3-10/37

pillar tractor "KhTZ" are now also made of "50G" steel. There is 1 diagram.

ASSOCIATION: Nevskiy mashinostroitel'nyy zavod imeni Lenina  
(Nevskiy Machine Building Plant imeni Lenin)

Card 2/2

SUDI AND M. S. R.

the following table, which shows the number of persons in each age group, the percentage of the total population represented by each age group, and the percentage of the total population represented by each age group.

... в Свердловске, инициатором которого выступил народный патриотический комитет под председательством генерала А.И. Бородина, организовавший в Екатеринбурге

BERDYANSKIY, V.N.; KUPERMAN, E.Sh.; MIRSAGATOV, A.N.

Building subsurface drainage in the Golodnaya Steppe. Gidr. i mel.  
14 no.3:16-22 Mr :62. (MIRA 15.4)

1. Institut vodnykh problem i gidrotekhniki AN U2SSR.  
(Golodnaya Steppe---Drainage)

HERDYANSKIY, V.N., inzh.; KUPERMAN, E.Sh., inzh.; MIRSAGATOV, A.N., inzh.

Mechanization of the construction of a deep covered drain. Mekh.  
stroi. 19 no.7:18-19 J1 '62. (MIRA 15:7)  
(Drainage) (Pipe-laying machinery)

BERDYANSKIY, V.N.; KUPERMAN, E.Sh.; MIRSAGATOV, A.N.

Technology of the combined mechanized construction of a closed horizontal drainage in the Golodnaya Steppe. Vop. gidrotekh. no.15:57-68 '63.

(MIRA 18:2)

KUPERMAN F M

Kuperman, F. M. - "On controlling the development of wheat ears according to the theory of the plant growth in stages," Vestnik Mosk. un-ta, 1948, No. 10, p. 171-79

SO: U-4355, 14 August 53, (Letopis 'Zhurnal 'nykh Statey, No. 15, 1949)

KUPERMAN, F.M. Docent

"Biological Peculiarities in the Development of Wheat Kernels." Thesis for degree  
of Dr. Biological Sci. Sub 22 Jun 49, Moscow Order of Lenin State U imeni M.V.  
Lomonosov

Summary 82, 18 Dec 52, Dissertations Presented For Degrees in Science and  
Engineering in Moscow in 1949. From Verchernyaya Moskva, Jan-Dec 1949

KUPRIANOV, P. N.

Agriculture

(Biological principles of wheat cultivation) (Moskva) Moskovski univ., 1950

Monthly List of Russian Accessions, Library of Congress, July 1952. Unclassified.

KUTERIAN, F. N.

Seeds

Separation and storage of biologically valuable seeds as one of the most important conditions for increasing the productivity of cultivated plants, Vest. Mosk. Un., 5, No. 9, 1950.

Monthly List of Russian Accessions, Library of Congress, October 1952. Unclassified.

KUPERMAN, F. M.

Hybridization, Vegetable

Vegetative hybridization of cereals, Est. v shkole No. 2, 1952.

Monthly List of Russian Accessions, Library of Congress, July 1952.  
Unclassified.

KUTERMAN, PROF. F. M.

Barley

What are the characteristics of hull-less barley, its distribution and fertility?  
Prof. F. M. Kuterman. Est. v. shkola No. 3, 1952.

Monthly List of Russian Accessions, Library of Congress, September 1952. Unclassified.

KUPERMAN, F. M.

Grasses

Vegetation hybridization of true grasses. Vest. Mosk. un. 7 No. 2, 1952.

9. Monthly List of Russian Accessions, Library of Congress, October, 1952<sup>1953</sup> Unclassified.

1. KUPERMAN, F.M.
2. USSR (600)
4. Growth (Plants)
7. Some laws of plant formation and their use in selection work. Sel.i sem. 19 no. 11, 52
  
9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

1. J. M. KUPRIAN
2. USSR (600)
3. Botany - Morphology
4. Morphophysiological methods in plant examination. Biul. MEIP. Ltd. biol. 57 no. 6. 1952.
- 5.
- 6.
- 7.
- 8.
9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncr.

KUPERMAN, F. M. Prof.

"Basic Stages of the Organo-Genesis of Grains and the Direction of Their Variability," a paper given at the All-University Scientific Conference "Lomonosov Lectures", Vest. Mosk. Un., No.8, 1953.

Translation U-7895, 1 Mar 56

KUPERMAN, F.M., professor, doktor biologicheskikh nauk.

Regularity in the formation of fruit-bearing organs in plants.  
Est. v shkole no.3123-31 My-Je '54. (MLRA 7:7)

1. Kafedra darvinizma Moskovskogo gosudarstvennogo universiteta  
imeni M.V.Lomonosova.  
(Botany--Morphology)

KUPERMAN, F. M.

N/5  
631.311  
.K9

KUPFERMAN, F M

Etapy formirovaniya organov plodonošenija zlakov (Stages of formation of the organs of fertility of cereals, by) F. M. Kuperman ( i dr.) Moskva, izd-vo Moskovskogo Universiteta, 1955. v. illus., diagrs. tables. At head of title: Moscow. Universitat. "Spisok Literatury": v. 1, p. 306-316. Lib. Has: v. 1.

KUPERMAN, F.M., professor, doktor biologicheskikh nauk.

Light as a factor in the development and changes in forms of  
plants. Est. v shkole no.1:14-21 Ja-F '55. (MLRA 8:3)

1. Moskovskiy gosudarstvennyy universitet im.M.V.Lomonosova.  
(Plants, Effect of light on)

KUPERMAN, F.M.; RZHANOVA, Ye.I.; KAPITANOVA, T.A.; ZHAKIPOVA, A.P.;  
LYUBIVAYA, N.S.; LYUBIVYY, V.M.

Relation of plant developments to organogenesis of corn inflorescence.  
Vest.Mosk.un. no.9:121-133 S '55. (MLRA 9:1)  
(Corn (Maize))

KUPERMAN, F.M.

Role of light at different stages of the organogenesis of wheat, rye,  
and barley. Trudy Inst.fiziol.rast. 10:272-285 '55. (MLRA 8:9)

1. Laboratoriya biologii razvitiya rasteniy kafedry darvinizma Moskovskogo  
gosudarstvennogo universiteta im. M.V. Lomonosova.  
(Plants, Effect of light on)

KUPERMAN, Yanni Mikhaylovna; STANKOV, S.S., professor, otvetstvennyy redaktor;  
SEREBRYAKOV, I.G., professor, redaktor; MIKHAYLOVA, T.A., tekhnicheskiy redaktor

[Biological principles in wheat growing] Biologicheskie osnovy kul'tury pshenitsy. [Moskva] Izd-vo Moskovskogo univ. Vol.3. [Morphophysiological methods of studying wheat species. Biological control of wheat plantations] Morfofiziologicheskie priemy issledovaniia vidov pshenitsy. Biologicheskii kontrol' za posevami pshenitsy.  
1956. 279 p.  
(Wheat) (MLRA 9:11)

KUPERMAN, F.M., professor.

Biological methods for checking the development and growth of corn.  
Est. v shkole no.2:18-24 Mr-Ap '56. (MLRA 9:7)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.  
(Corn (Maize))

KUPERMAN, F.M.; LUCHSHEV, A.A.; SHUL'GIN, A.M.

Some features of the development and growth of corn in the new  
corn regions. Report no.1, Izv. AN SSSR. Ser.biol. no.4:15-38  
Jl-Ag '56. (MLRA 9:10)

1. Moskovskiy ordena Lenina i ordena Krasnogo znameni Gosudarstven-  
nyy universitet imeni M.V.Lomonosova, Kafedry darvinizma klimatologii  
i zemledeliya.

(MOSCOW PROVINCE--CORN (MAIZE))

COUNTRY : USSR  
CATEGORY : Cultivated Plants  
ASS. NUMBER : 285101, No. 3, 1959, p. 10921  
NAME OF AUTHOR : Superin, F. N.  
INSTITUTION : University Izmail M. V. Lomonosov  
BREEDING : The Use of Morphophysiological Methods of Study in Corn Breeding.

DATE OF PUBLICATION : 1959  
NUMBER OF PAGES : 1/5

Y sb.: Vor. metodiki selektsii zhenity i kultury.  
Izmer., izd-t, 1959, 209-222.  
Data (of the University Izmai M. V. Lomonosov) on the  
morphological control of the growth and development of  
plants, of the condition of the vegetative cone of the  
varieties and ears and of the state of the axillary buds in corn  
growing season under definite meteorological conditions.  
A close relationship was observed between the growth pro-  
cesses and the passage through the stages of organogenesis. Also observed was the

COUNTRY :	
CATEGORY :	
ABS. JOUR. :	RZhBiol., No. 1959, No. 10921
AUTHOR :	
INST. :	
TITLE :	
ORIG. PUB. :	
ABSTRACT :	difference in the nature of the requirements with respect to the conditions of the length of the day during the formation of the female and male generative organs. Nine stages of organogenesis were singled out during the formation of the male inflorescence and of the panicle starting from the undifferentiated growth cone until flowering, and 12 stages were singled out in the formation of the female generative organs and of the ear from the inception of its rudimentary form until the wax-stage maturity and the ripening of the kernels. The actual coming into being of the organogenesis stages occurs only in the presence of a def-
CARD:	2/5

COUNTRY	:
CATEGORY	:
ABS. JOUR.	: RZhBiol., No. 1959, No. 10921
AUTHOR	:
INST.	:
TITLE	:
ORIG. PUB.	:
ABSTRACT	: init condition of the plants during a stage and is closely related to external conditions. By influencing the progress of the passage through the developmental stages and the stages of organogenesis, it is possible to change, in the required direction, the form, dimensions and other characteristics of the plants, the number of the rows of kernels in the ears, the number of ears, the weight of the kernels, etc. An additional feeding of the plants during the period of the 4th stage of organogenesis, when the

CARD: 3/5

-33-

COUNTRY :  
CATEGORY :  
ABS. JOUR. : RZhSiol., No. 1959, No. 10921  
AUTHOR :  
INST. :  
TITLE :  
ORIG. PUB. :  
ABSTRACT : Formation of spikelets is in progress, promotes an increase in their number. Application of large doses of Cu at the beginning of the 6th stage when the pollen is being formed, caused its complete underdevelopment. The length of the ear depends on the duration of the 3d stage of the organogenesis of the ear on which the elongation of the growth zone is in progress. Better conditions of growth at the 4th stage promote the formation of a larger number of spikelets, the formation of productive plants, etc. Differentiation of the growth cone of the male generative organs begins considerably earlier than that of

CARD: 4/5

COUNTRY :	
CATEGORY :	
ABS. JOUR. :	RZhBiol., No. 1959, No. 10921
AUTHOR :	
INST. :	
TITLE :	
ORG. PUB. :	
ABSTRACT :	the female generative organs. The bursting is reached in 6-30 days, depending on the variety. The rate of the organogenesis of the ear (especially at the 3-7th stages) is higher in comparison with the rate of panicle formation and by flowering stage, an ear of corn overtakes the panicle in its development. The development of the generative organs proceeds faster under the conditions of the shortened 9-hour day. -- T. I. Shapiro

CARD: 5/5

USSR / General and Special Zoology. Insects.  
Abs Jour: Ref Zhur-Biol., No 4, 1958, 16424  
Author : Dobrovolskii V.V., Kuperman F.M.  
Inst : Not given  
Title : On the Control of Swedish Fly Larvae on Corn.  
(O bor'be s lichinkami shvedskoi mukhi na kukur-  
uze.)  
Orig Pub: Seleksiya i semenovodstvo, 1957, No 1, 56  
Abstract: More than 100 types and hybrids of corn were in  
the sown environs of Moscow at the end of May.  
A suspension of 2 liters of [hexachloracyclo-  
hexane] HCCH (0.05 g of 12% dust and 2.5 g of  
ammonium nitrate per 1 litre of water) was  
introduced into each group of plants June 13.  
(3-4 plants). Although the experimental young  
crops were greatly infested with larvae, the

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General and Special Zoology. Insects.

Abs Jour: Ref Zhur-Biol., No 4, 1958, 16424

Abstract: plants became better June 22, the leaves restor-  
ed their normal coloring, the fifth and sixth  
leaves developed normally, the sixth and seventh  
leaves opened up one to two days sooner, the plants  
were stronger than the control plants, while all  
the larvae in the plants died.

Card 2/2

KUPERMAN, F.M.

USSR/Cultivated Plants - Grains.

M-2

Abs Jour : Ref Zhur - Biol., No 20, 1958, 91592  
Author : Kuperman, F.M.  
Inst : Moscow State University  
Title : Biological Control in the Development and Growth of Agric. cultural Crops.  
Crig Pub : Nauka i perevod. opyt v s. kh., 1957, No 2, 28-30.  
Abstract : Through observations on the formation of fruit-bearing organs in winter crops, the Moscow State University's Plant Development Biology Laboratories developed a method of determining the viability of winter crops during the wintering period by the condition of the growth cone. The method of determination is described in detail. In live plants the growth cone is white or light green with pronounced turgor. In dead plants the cone is

Card 1/2

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USSR/Cultivated Plants - Grains.

M-2

Abs Jour : Ref Zhur - Biol., No 20, 1958, 91592

characterized by complete loss of turgor, a turbidity in the cells and the appearance of a yellow-brown and even brown-black color. The characteristics of 12 stages of organogenesis, established by the author are given in the article. They are characteristic for winter grains and it is recommended that observations be made on their processes for determining the necessity of certain agrotechnical measures at the proper time. -- G.N. Chernov.

Card 2/2

KUPERMAN, F.M., professor.

Variability of corncobs and panicles (in answer to V.I. Mal'tseva's question). Biol. v shkole no.3;91-94 My-Je '57. (MLRA 10:6)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova.  
(Corn (Maize)) (Inflorescence) (Botany--Variation)

KUPERMAN, F.M., professor.

Biological control of the development and growth of farm crops.  
Nauka i pered.op. v sel'khoz. 7 no.2:28-30 F '57. (MLRA 10:3)  
(Field crops) (Biological research)

KUPERMAN, F.M., professor; MOROZOVA, Z.A., aspirant; ROSTOVTSEVA, Z.P.,  
kandidat biologicheskikh nauk.

Biological investigation of the growth and development of spring  
crops. Nauka i pered. op. v sel'khoz. 7 no.5:30-32 Ky '57.  
(Wheat) (Oats) (Millet)

(MLRA 10:6)

PISAREV, V.Ye., prof.; KUPERMAN, F.M., prof.; MAR'YAKHINA, I.Ya., kand. biol.  
nauk.

Biological investigation of the growth and development of buckwheat.  
Nauka i pered. op. v sel'khoz. 7 no.12:44-46 D '57. (MIRA 11:1)  
(Buckwheat)

Kuperman, F. M.

25-9-9/40

AUTHOR: Kuperman, F.M., Doctor of Biological Sciences, Mar'yakhina, N.Ya., Candidate of Biological Sciences, Rybakova, M.I., Candidate of Biological Sciences

TITLE: Regularities in the Development of a Plant (Zakonomernosti razvitiya rasteniya)

PERIODICAL: Nauka i Zhizn', 1957, # 9, p 17-20 (USSR)

ABSTRACT: The article deals with the different stages in the vegetation period of plants. Studies to this effect were especially intensified in the first three decades of the XX-th century. Soviet scientists had an important share in the development of theories in the field of ontogeny of higher plants. Important are the works of the following scientists: A.N. Beketov, K.A. Timiryazev, V.A. Palladin, N.P. Krenke, V.N. Lyubimenko, N.A. Maksimov and N.T. Kholodnyy. Of special importance are the works of I.V. Michurin and the scientific research conducted by T.D. Lysenko which led to the theory on the development of plants by certain stages. It was proved that a series of basic conditions were necessary to warrant the normal growth of a plant in each stage, such as favorable temperature, the right

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' Regularities in the Development of a Plant

25-9-9/40

proportion between the length of days and nights, the spectral composition of light, a certain minimum of moisture, the existence of certain microelements, proper fertilization, etc. The discovery of recurring regularities in the growth of widely different plants helps to find new ways for the control over their growth and development.

There are 17 figures and 4 Russian references.

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Card 2/2

KUPERMAN, F., prof.

Biological control of the growth and development of winter crops.  
Nauka i pered. op. v sel'khoz. 8 no.10:42-45 O '58.

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.  
(Grain) (Growth (Plants)) (MIRA 11:11)

KUPERMAN, F. M.

"Regularities in Organogenesis of Higher Angiosperms."  
Paper submitted for the Int'l Botanical Congress, Montreal, Canada, 19-29 Aug 1959.

Moscow State University, U.S.S.R.

ANDREYEIKO, Stepan Sidorovich; KUPERMAN, Fanni Mikhaylovna; RUBIN, B.A.,  
prof., obshchiy red.; GOL'TSMAN, O.G., md.; LAZAREVA, L.V.,  
tekhn.red.

[Physiology of corn; studies on the physiology of development,  
growth, photosynthesis, mineral nutrition, and water regimen]  
Fiziologiya kukuruzy; ocherki po fiziologii razvitiia, rosta,  
fotosinteza, mineral'nogo pitanija i vodnogo rezhima. Pod  
obshchey red. S.A.Rubina. Moskva, Izd-vo Mosk.univ., 1959.  
288 p.

(Corn (Maize))

(MIRA 12:12)

KUPERMAN, F.M., prof.

Method of determining the condition of winter crop stands.  
Zemledelie 7 no.8:48-57 Ag '59. (MIRA 12:10)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova.  
(Grain)

KUPERMAN, F., doktor biolog. nauk; PISAREV, V., doktor sel'skokhoz. nauk

A good monograph ("Siberian millet" by E.T. Varenitsa. Reviewed by F. Kuperman and V. Pisarev). Nauka i pared. op. v sel'khoz. 9 no. 4:78-79 Ap '59. (MIRA 12:6)  
(Millet) (Varenitsa, E.T.)

VERENITSA, Ye., doktor biolog. nauk; KUPFERMAN, F., doktor biolog. nauk;  
PISAREV, V., doktor sel'skokhoz. nauk

Outstanding works of a Soviet scientist. Nauka i pered. op. v  
sel'khoz 9 no.10:77-79 O '59 (MIRA 13:3)  
(Lysenko, Trofim Denisovich, 1898-)

KUPERMAN, Fanni Mikhaylovna, prof., doktor biolog. nauk; LEONOVА, T.S.,  
red.; SAVCHENKO, Ye.V., tekhn. red.

[Biological control in the service of the harvest] Biologicheskii  
kontrol' na sluzhbu urozhaiu. Moskva, Izd-vo "Znanie," 1961. 52 p.  
(Vsesoiuznoe obshchestvo po rasprostraneniiu politicheskikh i  
nauchnykh znanii. Ser.8, Biologiya i meditsina, no.22)

1. Moskovskiy Gosudarstvennyy universitet (for Kuperman)  
(Plant physiology)

(MIRA 15:1)

KUPERMAN, Feina Mikhaylovna; DANIL'CHENKO, O.P., red.; YERMAKOV, M.S.,  
tekhn.red.

[Theory of individual development and ways of controlling the  
nature of the organism; lecture from a course in the biology  
of plant development] Teoriia individual'nogo razvitiia i puti  
upravleniya prirodoi organisma; lektsiiia iz kursa "Biologiiia  
razvitiia rastenii". Moskva, Izd-vo Mosk.univ. No.1. 1961.  
55 p.

(Ontogeny (Botany))

(MIRA 14:4)

ALEKSANDROV, V.G., prof., red.; DVORYANKIN, F.A., prof., red.; KADEN, N.N.,  
kand. biol. nauk, red.; KUPERMAN, F.M., prof., red.; L'VOVA, I.N.,  
kand. biol.nauk, red.; PALAMARCHUK, I.A., kand.biol.nauk, red.;  
PODDUBNAYA-ARNOL'DI, V.A., prof., red.; PRONIN, V.A., kand.biol.nauk,  
red.; RZHANOVA, Ye.I., kand. biol.nauk, red.; ROSTOVTSEVA, Z.P., kand.  
biol.nauk, red.; SEREBRYAKOV, I.G., prof., red.; USTINOVA, Ye.I., kand.  
M.S., tekhn. red.

[Morphogenesis in plants; transactions dedicated to the 100th anniversary of the publication of Darwin's "Origin of species."] Morfogenetika rastenii; trudy posveshchaisia 100-letiiu so dnia vykhoda v svet truda Charlza Darvina "Proiskhozhdenie vidov." Moskva, Izd-vo Mousk. univ. Vol.1. 1961. 683 p.  
(MIRA 14:9)

1. Soveshchaniye po morfogenezu rasteniy, 1959.  
(Botany--Morphology)

RUSTEMBEKOV, S.S.; KUPERMAN, F.M.

Development and growth of various morphophysiological types of corn in relation to light. Nauch. dokl. vys. shkoly; biol. nauki no.2:206-214 '61. (MIRA 14:5)

1. Rekomendovana kafedroy darvinizma Moskovskogo gosudarstvennogo universiteta im. M.V. Lomonosova.  
(CORN (MAIZE)) (PLANTS, EFFECT OF LIGHT ON)

KUPERMAN, F.M.

Morphological and physiological effect of light of different spectral composition on plants as related to the length of the photoperiod.  
Nauch. dokl. vys. shkoly; biol. nauki no.4:136-146 '61.  
(MIRA 14:11)  
1. Rekomendovana kafedroy darvinizma Moskovskogo gosudarstvennogo  
universiteta im. M.V.Lomonosova.  
(PLANTS, EFFECT OF LIGHT ON)

SHUL'GIN, I.A.; KUPERMAN, F.M.; VYSLOUKH, V.A.; SHCHERBINA, I.P.

Chlorophyl content as a physiological index of heterosis in corn.  
Fiziol. rast. 8 no.6:754-756 '61. (MIRA 16:7)

1. Laboratory of the Biology of Development of Moscow University  
and K.A. Timiriazev Institute of Plant Physiology, U.S.S.R.  
Academy of Sciences, Moscow.  
(Heterosis) (Corn (Maize)) (Chlorophyll)

KUPPERMAN, F.M., prof. dr. biolog. nauk; PODOL'NYY, V.Z.; SHUL'GIN, I.A.,  
~~kand. biolog. nauk~~

Changes in the shape and size of sunflower leaves in connection  
with the stages of its organogenesis. Uch. zap. Kab.-Balk. gos.  
un. no. 10:31-40 '61. (MIRA 17:6)

RZHANOVA, Yevdokiya Ivanovna; KUPERMAN, F.M., prof., ovt. red.;  
DANIL'CHENKO, O.P., red.; YERMAKOV, M.S., tekhn. red.

[Subject, methods, and problems of the biology of the development of higher plants; lecture from a course in the biology of plant development] Predmet, metody i zadachi biologii razvitiia vysshikh rastenii; lektsiia iz kursa "Biologija razvitiia rastenij." Moskva, Izd-vo Mosk. univ., 1962. 30 p. (MIRA 16:1)  
(Plant physiology)

KUPERMAN, Faina Mikhaylovna; DANIL'CHENKO, O.P., red.; YEGOROV, M.S.,  
tekhn. red.

[Theory of individual development and ways of controlling the  
nature of the organism; lecture from a course in the biology  
of plant development] Teoriia individual'nogo razvitiia i pu-  
ti upravleniya prirodoi organizma; lektsija iz kursa "Biologija  
razvitiia rastenii." Izd.2., dop. i perer. Moskva, Izd-vo  
Mosk. univ., 1962. 67 p. (MIR15:9)  
(Ontogeny (Botany))

KUPERMAN, F.M., prof., red.; NECHAYEVA, Ye.G., red.; YERMAKOV, M.S.,  
tekhn. red.

[Biological control in agriculture; methods for determination,  
tables, and brief description of the phases of organogenesis in  
50 plant species] Biologicheskii kontrol' v sel'skom khoziaistve;  
metodika opredeleniya, tablitsy i kratkoe opisanie etapov orga-  
nogeneza 50 vidov rastenii. Moskva, Izd-vo Mosk. univ., 1962.  
273 p. (MIRA 15:12)

(Botany, Economic) (Growth (Plants))

KEREOFV, K.N., doktor sel'skokhoz.nauk, prof.; KUPERMAN, F.M., doktor  
bidl'g. nauk, prof.; SHAUTSUKOV, Z.Kh., kand.sel'skokhoz. nauk

Morphophysiological analysis of the single-ear and double-ear  
forms of corn on collective farms of the Kabardino-Balkar  
A.S.S.R in 1961. Uch. zap. Kab. - Balk. gos. un. no.14:14-22'62.  
(MIRA 16:6)

1. Kabardino-Balkarskiy gosudarstvennyy universitet (for  
Kerefov), 2. Moskovskiy gosudarstvennyy universitet (for  
Kuperman).

(KABARDINO-BALKAR A.S.S.R.--CORN BREEDING)

SHUL'GIN, I.A.; KUPERMAN, F.M.; SHCHERBINA, I.P.

Relation between the chlorophyll content and stages of organogenesis in corn. Fiziol. rast. 9 no.3:347-352 '62. (MIRA 15:11)

1. Institut fiziologii rasteniy imeni K.A.Timiryazeva Akademii nauk SSSR, Moskva i Laboratoriya biologii razvitiya rasteniy Moskovskogo gosudarstvennogo universiteta.  
(Corn (Maize)) (Chlorophyll)

L'VOVA, Irina Nikolayevna; KUPERMAN, F.M., prof., otv. red.;  
DANIL'CHENKO, O.P., red.; GEORGIYEVA, G.I., tekhn. red.

[Sex in plants; a lecture from the course "Biology of plant development"] Pol u rastenii; lektsiiia dlia studentov zaочnogo i vechernego otdelenii biologicheskikh fakul'tetov gosudarstvennykh universitetov. Lektsiiia iz kursa "Biologiya razvitiia rastenii." Moskva, Izd-vo Mosk. univ., 1963. 54 p.

(MIRA 16:5)

(Plants, Sex in)

KUPERMAN, Faina Mikhaylovna; DANIL'CHENKO, G.P., red.; CHISTYAKOVA,  
K.S., tekhn. red.

[Physiologicomorphologic variability of plants in ontogenesis; a lecture from the course "Biology of plant development"] Morfofiziologicheskaiia izmenchivost' rastenii  
v ontogeneze; lektsiiia iz kursa "Biologiia razvitiia rastenii."  
Moskva, Izd-vo Mosk. univ., 1963. 63 p. (MIRA 16:10)  
(Ontogeny (Botany)) (Botany--Morphology)

KUPERMAN, Faina Mikhaylovna; DANIL'CHENKO, O.P., red.; GEORGIYEVA, G.I., tekhn. red.

[Characteristics of the individual development of plants depending on the conditions of the environment; light and plant development] Zakonomernosti individual'nogo razvitiia rastenii v zavisimosti ot uslovii vneshnei sredy; svet i razvitiye rastenii. Lektsiiia iz kursa "Biologiya razvitiia rastenii." Moskva, Izd-vo Mosk. univ., 1963. 102 p.  
(MIRA 17:2)

SHUL'GIN, Igor' Aleksandrovich; KUPERMAN, F.M., prof., otv. red.;  
KLESHNIN, A.F., prof., otv. red.; DANIL'CHENKO, O.P.,  
red.; GEORGIYEVA, G.I., tekhn. red.

[Morphological adaptations of plants to light; optical  
properties of leaves. A lecture from the course "Biology  
of plant development"] Morfofiziologicheskie prispособления  
растений к свету; оптические свойства листьев. Лекция из  
курса "Биология развития растений." Москва, Изд-во Моск.  
унив. 1963. 72 p. (MIRA 16:9)

(Leaves--Optical properties)

KUPELMAN, Faina Mikhaylovna, prof.; RZHANOVA, Yevdokiya Ivanovna,  
dots.; PARSHADANÖVA, K.G., red.

[Biology of plant development] Biologija razvitiia rastenii. Moskva, Vysshiaia shkola, 1963. 423 p.  
(MIRA 17:9)

KUPELMAN, Faina Mikhaylovna

[Morphological variability of plants in ontogenesis; a lecture from a course in the "Biology of plant development"] Morfologicheskaja izmenchivost' rastenij v ontogeneticheskom razvitiye; lektsija iz kurca "Biologija razvitiia rastenij". Moskva, Izd-vo Mosk. univ., 1961. 63 p.

(PIRL 10-11)

SILLYER, S.V.; KITAHARA, T.M.

Effect of spectral light composition on the development of  
millet as related to the duration of photoperiods and the  
alternation of strong and weak light intensities. Vest. Nauk.  
zool. Ser. 6: Biol., pochv. 20 : no. 6: 3-42. N.-D. '65.

(REF. 19:1)

SOVIET P.M.L. READING, 1958

Effect of the administration of light chain fragments on the  
potentiation of the development and production of antibodies in mice.  
dokl. vssr. obshch. biol. nauchn. issled. i tehn. 1958, no. 10, p. 107-110.

1. Results indicate that the administration of fragments of the gamma chain of immunoglobulin M (IgM) stimulates the production of antibodies.

AUTHORS: Kuperman, F. Ye. and Landa, Ye. F. SOV/138-58-9-9/11

TITLE: The Bonding of Rubber to Plastics (Krepleniye reziny k plastmassam)

PERIODICAL: Kauchuk i Rezina, 1958, Nr 9, pp 32 - 34 (USSR)

ABSTRACT: Investigations of a method of fixing rubbers to plastics are of great interest in mechanical engineering and other branches as construction material. Various British, Australian, U.S.A., and Japanese adhesives are quoted and tabulated (Refs. 1 - 8 and Table 1). A 20% solution of *n,n',n''*-triphenylmethane-triisocyanate in dichloroethane (the adhesive "Leykonat") was used. A thin layer of the adhesive was applied on the clean surface of Textolite, a laminated plastic. The latter was dried and then vulcanised at 135 - 140°C and 25 kg/cm<sup>2</sup> pressure. Good results were obtained with adhesives based on butadiene acrylonitrile and sodium-butadiene rubbers and also "Nairit", but the results were not favourable for NK rubbers. The strength of bonding was tested on a dynamometer and found to reach 20 kg/cm<sup>2</sup> (Table 2) for polar rubbers such as SKN-40 and "Nairit". For butadiene-acrylonitrile rubber (SKN-40) the strength of bonding

Card 1/2

The Bonding of Rubber to Plastics

SOV/138-58-9-9/11

was, in first approximation, inversely proportional to the hardness of the rubber (Fig.2). This method is used mainly in the car industry. The adhesive "Leykonat" can also be used for the bonding of polar and sodium-butadiene rubbers to aldehyde (phenol-formaldehyde) plastics. There are 2 Tables, 1 Figure and 8 References: 1 French and 7 English.

ASSOCIATION: Zavod "Kauchuk"  
(Factory "Kauchuk")

Card 2/2

TSUKERBERG, S.M.; ZAKHAROV, S.P.; MENAKHOV, B.V.; ABRAMOVA, E.Ye.;  
ZUYEV, Yu.S., red.; KUPFERMAN, F.Ye., red.; LIPZANSKAYA, A.A.,  
tekhn.red.

[High-roadability tires for motor vehicles] Shiny dlja avtomo-  
bilej povyshennoj prokhodimosti. Moskva, Gos.nauchno-tekn.izd-vo  
khim.lit-ry, 1960. 71 p.  
(MIRA 14:4)  
(Motor vehicles--Tires)

PRIKLONSKAYA, Natal'ya Vladimirovna; SKACHKOV, Aleksey Sergeyevich;  
KUPERMAN, F.Ye., red.; ZAZUL'SKAYA, V.F., tekhn. red.;  
PANTELEYEVA, L.A., tekhn. red.

[Rapid methods of rubber compounding] Skorostnye metody  
prigotovleniya rezinovykh smesei. Moskva, Goskhimizdat,  
1963. 419 p. (MIRA 16:11)  
(Rubber machinery)

ACCESSION NR: AP4015074

S/0138/64/000/001/0010/00114

AUTHORS: Kuperman, F. Ye.; Karmin, B. K.

TITLE: Peculiarities in fatigue properties of vulcanized rubbers on the base of carboxyl containing rubbers (Presented at the third conference on chemistry and technology of rubber and its vulcanizates. Yaroslavl', December 17, 1960)

SOURCE: Kauchuk i rezina,<sup>23</sup> no. 1, 1964, 10-14

TOPIC TAGS: rubber, vulcanized rubber, methacrylic acid, magnesium oxide, zinc oxide, thiuram, sulfur, butadiene, styrene, static deformation, dynamic deformation, fatigue, creep, orientation, scorching

ABSTRACT: Filled vulcanizates of the protector type were investigated. These consisted mainly of a butadiene (70%) - styrene (30%) copolymer, containing in most instances 0.5, 0.8, and 1.25% methacrylic acid, 2.5% MgO, 1% ZnO, 2.5% thiuram, and 1% sulfur. The filler consisted of 20% (by weight) channel carbon black and 20% gas chimney carbon black. It was found that the creep (at 110C under constant load) of the test samples decreased with an increase in methacrylic acid content, while the durability and resistance to stretch fatigue went up

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ACCESSION NR: AP4015074

sharply. On the other hand, under the effect of a reversed bending test with a twist, the durability of the vulcanizates decreased with higher methacrylic acid content. The authors attribute this to a higher modulus of internal friction. Since it is also known that substantial scorching takes place in the process of vulcanization of rubbers containing carboxyl groups, the authors recommend limiting the methacrylic acid content in butadiene-styrene rubbers to 0.5-0.8%. Orig. art. has: 8 charts and 1 table.

ASSOCIATION: Nauchno-issledovatel'skiy institut shinnoy promyshlennosti (Scientific Research Institute of the Tire Industry)

SUBMITTED: OO

DATE ACQ: 26Feb64

ENCL: 00

SUB CODE: CH

NO REF SOV: 008

OTHER: 005

Card 2/2

ACCESSION NR: AT5004100

5/000 1/64/000/000/0107/0123

21

CD Kuperman, F., Ye. Karmin, B. K.

Card 1/3

channel black per 100% rubber. Viscosity was determined at 70-140C on a rotary

viscometer. 100C plastic recovery on a compression mold at 100 and deformation

at 100 C and 100C impact strength at 100 C.

Card 2/3

100

I would like to acknowledge the assistance of Yu. A. Shestorkina and E. A. Anifimova in the

AUTHOR: Kuperman, G.B. (Moscow) SOV-47-5e-5-7/28

TITLE: The Study of the Properties of Solids in Connection with Their Structure (Izuchenie svoystv tverdykh tel v svyazi s ikh stroyeniyem)

PERIODICAL: Fizika v shkole, 1958, Nr 5, pp 29-40 (USSR)

ABSTRACT: In instructing on "Properties of Solids", principal attention is given to the exposition of questions of applied and not of physical characteristics. The properties of solids, however, are being taught in the section "Molecular Physics and Heat". Therefore, this theme should consist mainly of information on such phenomena in solids which are caused by the motion of molecules and their mutual interaction. In polytechnical schools, physical phenomena must be studied in close touch with practical problems. Therefore, the students must become familiar with the physical fundamentals of the most widely-distributed methods of changes in the properties of solids. This can be done by a systematic study of the structure of solids and of the connection between the solid and its structure. The article describes how this can be achieved. The method proposed has been tested by the author and the teachers T.P. Zelenova of the 151st and A.I. Gervash of the 706th

Card 1/2

SOV-47-58-5-7/28

The Study of the Properties of Solids in Connection with Their Structure

Moscow Schools.

There are 5 drawings, 1 graph, 16 figures, 1 table and  
20 Soviet references.

1. Solids--Properties

Card 2/2

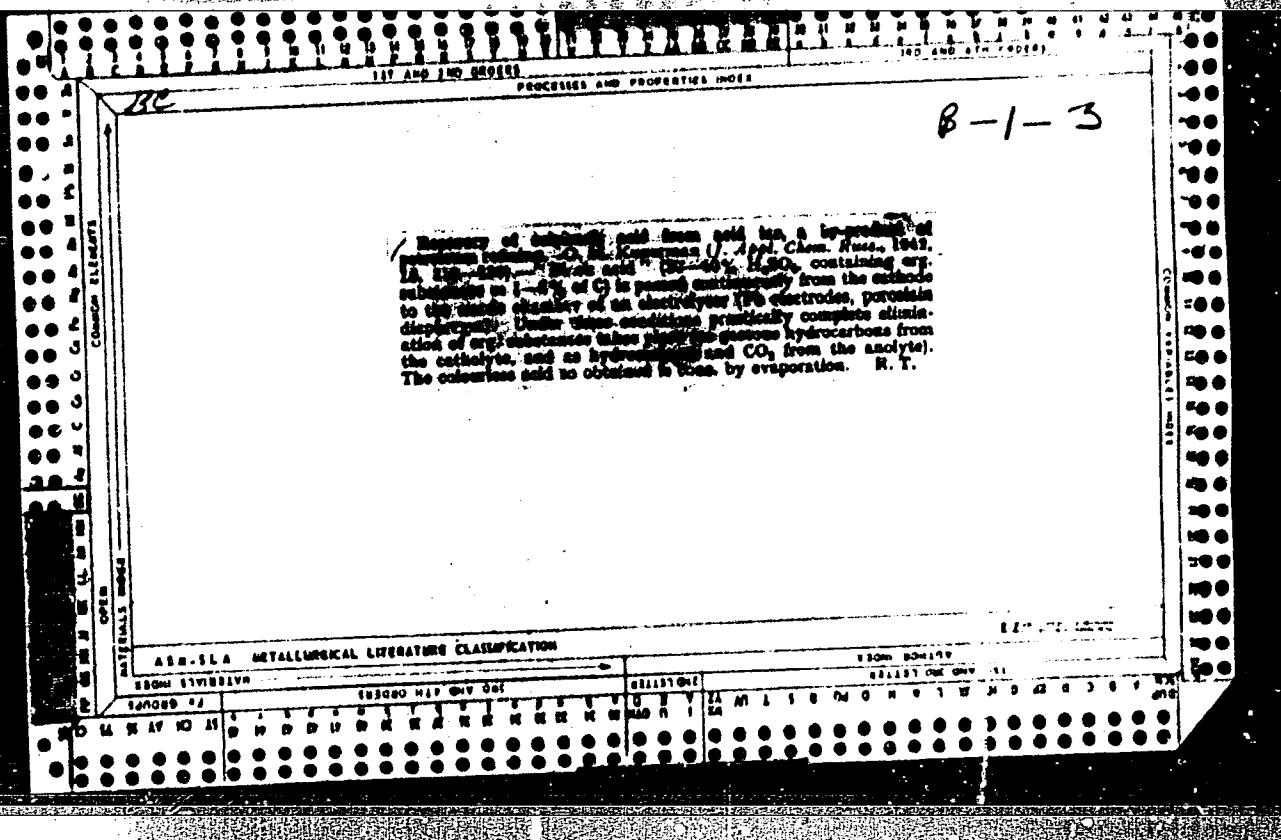
KUPERMAN, G.B. (Moscow)

Qualitative problems in the physics of solids. Fiz. v shkole 18  
no. 4:76-77 Jl-Ag '58. (MIRA 11:7)  
(Physics--Problems, exercises, etc.)

M

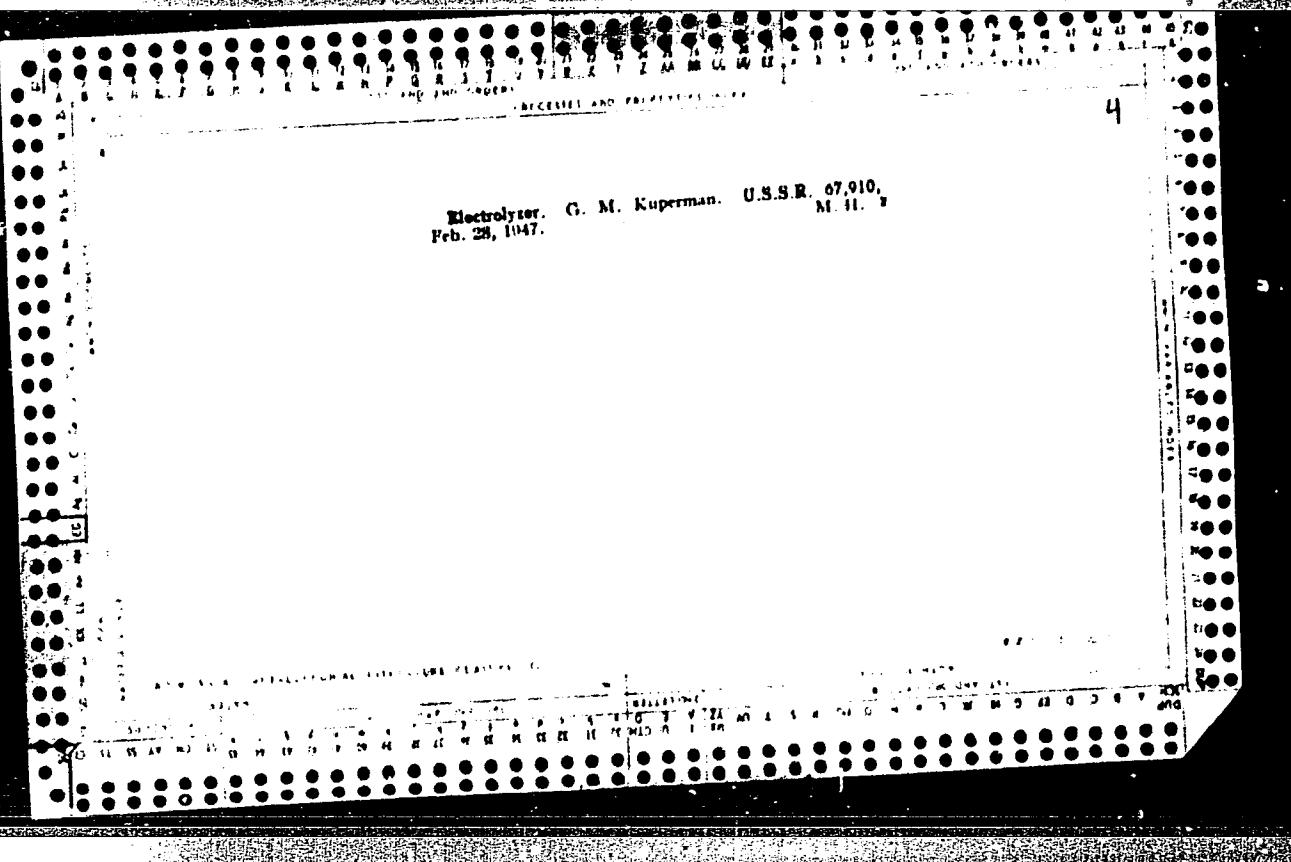
*m*

Electrolyte for Chromium Plating. O. M. Kuperman and L. D. Melikadze. *Tsvetnaya Metalloobrabotka i Plavlenie*, No. 4, (2), 78; *C. Abstr.*, 1940, **2**, 207-210; *Zhurn. Referat. Zashch.*, 1941, **4**, (2), 78; *C. Abstr.*, 1943, **27**, 3351. [In Russian.] The object of the experiments was to devise a method for obtaining chromium electrolyte from available raw materials. The following technical scheme was used: production of  $\text{Ca}(\text{CrO}_4)_2$  from fused  $\text{Na}_2\text{CrO}_4$  and the separation of  $\text{Cr(OH)}_3$  from it by decomposition with  $\text{H}_2\text{SO}_4$ . The optimum concentration of the initial  $\text{Na}_2\text{CrO}_4$  is 10%. Increasing the concentration of  $\text{Na}_2\text{CrO}_4$  increases the amount of NaOH formed from the reaction:  $\text{Na}_2\text{CrO}_4 + 2\text{Ca(OH)}_2 \rightarrow 2\text{Ca}(\text{CrO}_4)_2 + 2\text{NaOH} + \text{H}_2\text{O}$ ; this increases the solubility of  $\text{Ca}(\text{CrO}_4)_2 \cdot 2\text{H}_2\text{O}$ . The process must be carried out at 90° C., at which temperature a higher yield of the fine-grained  $\text{Ca}(\text{CrO}_4)_2$  precipitate is obtained, and the  $\text{Ca}(\text{CrO}_4)_2$  is less soluble than at lower temperatures. The excess CaO required for a complete precipitation is 15-20%. The precipitate formed contains  $\text{Ca}(\text{CrO}_4)_2 \cdot 2\text{H}_2\text{O}$  81%, and  $\text{CaO}$  19%. The  $\text{Ca}(\text{CrO}_4)_2$  is filtered, washed, dried, and transformed into  $\text{CrO}_3$  with  $\text{H}_2\text{SO}_4$  (300 gms./litre) by mixing and heating. The gypsum is separated by settling or filtering; the solution containing 60-70 gms. of  $\text{CrO}_3$ /litre is evaporated, the excess  $\text{H}_2\text{SO}_4$  neutralized with  $\text{Ca(OH)}_2$ , and the gypsum formed is separated, to leave a solution containing  $\text{Cr(OH)}_3$  300,  $\text{H}_2\text{SO}_4$  up to 2 N, and  $\text{CaO}$  up to 8 gms./litre. The solution is suitable for chromium plating. The relative amounts of the substances used per unit of  $\text{CrO}_3$  are:  $\text{Na}_2\text{CrO}_4 \cdot 2\text{H}_2\text{O}$  2:127,  $\text{H}_2\text{SO}_4$  (monohydrate) 1:858, and  $\text{CaO}$  1:270. The adaptation of the method to plant conditions is described in detail.



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CTRSP<sup>L</sup> No. 45

Kuperman, F.M. (M.V. Lomonosov Moscow State University). Regularities in the change of  
a variety of barley in connection with the conditions of stage development. 681-4

Akademiya Nauk, S.S.R. Doklady Vol. 79 No. 4

APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R000927610002-4"

KUPERMAN, G.M.; GVARAMADZE, D.Kh.: DZHIKIYA, S.I.; ZARKUA, N.P.

Obtaining soda from mirabilite and barite of Georgian  
deposits. Trudy Inst. khim. AN Gruz.SSR 11:117-125  
'53.

(MLRA 10:2)

(Sodium sulfate) (Mirabilite) (Barite)

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000927610002-4

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000927610002-4"

KUPERMAN, G. M.

Preparation of alums and aluminum sulfate, based on Zaglik  
alunites and the sulfuric acid waste from the acid tars of the  
petroleum refining industry. Part 1. Trudy Inst.khim. AN Gruz.  
SSR 14:203-230 '58. (MIRA 10:4)  
(Alum) (Aluminum sulfate) (Zaglik (Azerbaijan)--Alunite)

KUPERMAN, G.M.

Preparation of alums and aluminum sulfate, based on Zaglik  
alunites and the sulfuric acid waste from the acid tars of the  
petroleum refining industry. Part 2. Trudy Inst.khim. AN Gruz.  
SSR 14:231-252 '58. (MIRA 13:4)

(Alum) (Aluminum sulfate)  
(Zaglik(Azerbaijan)--Alunite)

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KUPERMAN, G.M.; GOGORISHVILI, P.V.; ZARKUA, N.P.; GONGLIASHVILI, A.N.

Extraction of copper from sulfide ores by the autoclave method.  
Soob.AN Gruz.SSR 25 no.5:533-538 N '60. (MIRA 14:1)

1. Akademiya nauk GruzSSR, Institut khimii imeni P.G.Melikishvili,  
Tbilisi. Predstavлено членом-корреспондентом Академии Г.В.  
TSitsishvili.

(Copper--Metallurgy)

KUPERMAN, G.M.; GOGORISHVILI, P.V.; GONGLIASHVILI, A.N.; ZARKUA, N.P.

Preparation by the autoclave method of a solution of zinc sulfate from a concentrate of the Kvaisi sulfide ore deposit.  
Trudy Inst.khim.AN Gruz.SSR 16:9-13 '62. (MIRA 16:4)  
(Zinc sulfate) (Kvaisi region—Sulfide ores)

, KUPERMAN I.

Cost Accounting

"Computing lowering of cost of production at each industrial operation." Bukhg.  
uchet, ll, No. 5. 1952.

Monthly List of Russian Accessions. Library of Congress, August, 1952. UNCLASSIFIED.

DOMANSKIY, V.I. [Domans'kyi, V.I.]; ZHURAVSKIY, L.I. [Zhurav's'kyi, L.I.];  
KISEL', I.M. [Kysel', I.M.]; KUPERMAN, I.S.

Methods for the measurement and regulation of gas filling of  
ideal mixing apparatus. Khim.prom. [Ukr.] no.1:72-77 Ja-Mr  
'64. (MIRA 17:3)

NIRENSHTEYN, Z., inzh.; KUPERMAN, L., kand. tekhn. nauk

Kinetics of the contact drying of roofing felt. Stroi. mat. 2  
no.10:23-24 O '56. (MIRA 12:3)  
(Roofing) (Drying apparatus)

STEPCHKOV, K.A.; VSYAKIKH, M.I.; KUPERMAN, L.A.

New methods of studying the oxidation spoilage of fats in  
food concentrates. Kons.i ov.prom. 17 no.5:27-30 My '62.  
(MIRA 15:5)

1. TSentral'nyy nauchno-issledovatel'skiy institut konservnoy  
i ovoshchesushil'noy promyshlennosti.  
(Food, Concentrated--Testing)

F KUPERMAN, L.I.

3827. RATES OF CONSUMPTION OF ELECTRICITY IN PULVERISATION OF  
CENTRAL ASIAN COALS IN SHAFT PULVERISER PLANTS. Kuperman,  
L. I. (Za Ekonomiyu Topliva (Fuel Econ.), 1949, (8),  
17-20). Rates vary between 5.6 and 23.4 k.W.h. per ton  
according to type of coal, size before and after pulverisation  
and wear in pulveriser. (L).

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PHASE I BOOK EXPLOITATION

Kuperman, L.I.

Leninskiye idei elektrifikatsii v deystvii (Lenin's Ideas on Electrification Are Carried Out) Odessa, 1957. 113 p. No. of copies printed not given.

Sponsoring Agency: Odesskiy politekhnicheskiy institut. Kafedra promyshlennoy teplotekhniki.

No contributors mentioned.

PURPOSE: This booklet is intended for the general reader interested in the history of electrification in the USSR.

COVERAGE: This booklet describes the progress made in the electrification of the USSR. Early work by GDELRO (State Commission for the Electrification of Russia) is discussed as are the effects of the dislocations and interruptions caused by the Civil War and

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## Lenin's Ideas on Electrification (Cont.)

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World War II. The author defines the importance of both mineral fuels and water power to the overall electrification picture. He provides statistical data showing annual increases in electric power production, appropriations allocated to electric power plants, personnel employed by power stations, capacity of power stations, electric power generation by republics, etc. There are 8 references, all Soviet.

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